WEST VIRGINIA SPLATTER

DECEMBER 2024

SKYWARN®
Recognition Day
00Z December 7 – 00Z December 8 2024
What is SKYWARN Recognition Day?
SKYWARN™ Recognition Day was developed in 1999 by the National Weather Service and the American Radio Relay League. It celebrates the contributions that SKYWARN™ volunteers make to the NWS mission, the protection of life and property.
Amateur radio operators comprise a large percentage of the SKYWARN™ volunteers across the country. The Amateur radio operators also provide vital communication between the NWS and emergency management if normal communications become inoperative.
National Weather Service Charleston, WV
NWS Charleston WV is seeking volunteer amateur radio operators to operate from the office for SKYWARN™ Recognition Day in 2024. We are planning to operate for the entire 24 hour period.
If you are affiliated with a club, please coordinate potential participation through your club leadership.

SKYWARN RECOGNITION DAY
DECEMBER 7, 2024

West Virginia Amateur Radio and other local clubs have been invited to participate in Skywarn Recognition Day on December 7th (from Friday December 6 at 7PM until Saturday December 7 at 7PM ET (0000 December 7 until 2400 UTC) at the National Weather Service Office in South Charleston.

If you are interested in participating in this terrific club event - please contact your club officers with your call sign, phone number and desired hours to operate. This event runs for 24 hours so any time of day or length of participation is welcome. If you have never visited the new NWS offices this is a great opportunity to see their state of the art facility and learn more about our weather forecasters.

Tom Gladdis, AB8RL is completing the spreadsheet for participation of WVAR members and others for submission to the National Weather Service.

BEVERAGE ON GROUND ANTENNA
Charlie Young, N8RR

I have been thinking about how to deploy a minimal 160/80M receive antenna that could work in multiple directions, for little money and work. I've had good luck with an active, short vertical array (2 or 3 elements) but these are sensitive to placement next to other objects such as transmitting antennas or even trees. These also work best with a variable phasing box, which is somewhat costly. Before WA8WV passed, I built a 2 element vertical array to deploy at his QTH, even though it was expected the tower would impact the performance. His lot was so small, there was no room to do anything else, other than a small loop which he had already tried without success. Unfortunately, we did not get to install this array.

I have also had good luck with wires on the ground, aka a BOG. Much of my DX, especially to Africa, has been worked using a BOG. Folks who discount the effectiveness of a wire on the ground for low band receive are making an error. I believe if one has the space, a BOG is would pay maximum dividends for the cost and work to install it. Here in West Virginia, I have made extensive use of these antennas.

With 4 wires 150' to 200' long, one could construct a simple array that would cover 4 directions. It is possible to make these bi-directional, and in that case 4 directions could be covered with only 2 wires. I have tried these bi-directional systems, and find the output to be down in one of the directions compared to the other. For simplicity and maximum effectiveness, I would go with 4 wires.

The width of the main lobe is broad enough that 4 directions would cover the compass rose pretty effectively. These antennas do an excellent job of rejecting local noise, unless you happen to have one of the wires pointed directly at a noise source. Improving the signal to noise ratio is why you need a receive antenna.

It is not necessary to have these wires run from a central point on your property. You can place them wherever they will fit. You can even place the wires side by side in close proximity to each other. For example, a NE BOG can be placed beside and near a SW BOG without significant interaction. Ditto NW and SE. You just have to run the feedline to the far end (back) of each wire.

The feedline should be flooded RG6, which has low enough loss on 160/80M that it is not a concern. You could put the antennas and feedline down in the fall, and roll them up in the spring before mowing season.

The BOGS can't share a common ground rod or matching transformer at the fed end. They must be separated by a few feet for best performance. Ditto on the termination end, each BOG must have its own termination. I am going to test this concept for W8IW. I will build the array here, then deploy it at his QTH.

Here are the parts needed:

A central switch unit for selecting antennas. This can go in the shack. I have a Hi Z switch box for this first one. The RG6 from each antenna will run into the shack. A good 160M preamp to go in the shack between the switch box and the RX input on the receiver. Only one preamp will be needed. A preamp is needed because the output level from a BOG is low compared to other recieving antenna options. It might be necessary to use a broadcast band filter ahead of the preamp. This will depend on the location.

The preamp and switchbox should have chokes on the in/out cables to minimize common mode noise pickup. Outside, each antenna must have a small matching transformer at the feedpoint, about a 4 to 1 ratio. Each wire must have a 250 ohm termination resistor in series with the wire and ground rod. There are ground rods at each end of each antenna wire. I use 4' rods, so buy 5/8" x 8' rods and cut them in half. These are relatively easy to

install and pull for mowing. Each antenna needs its own feedpoint and termination ground rod.

It is useful to provide a choke at the ground and feedpoint end, to suppress common mode noise.

4 wires 150 to 200' long are needed for the antennas proper. These should be insulated wire. I use #14 THHN or THW as sold by the box stores. The length is not super critical, but they can be too long, depending on the conductivity of the earth. If the wire is too long, it loses directivity. Around here, 150 to 200' seems to work.

Since you are not phasing these antennas, the coax feedline length is not critical, and each antenna can be different length of feedline.

Once configured, we should be able to install this system in less than two hours, maybe even in an hour. There are better receiving antennas, but they cost more and are more complex to install. On the AM broadcast band, you would be amazed at how directional these BOG antennas are.

When we get ready to install this system, we will request assistance because both W8IW and N8RR are not very mobile these days! You will get to see how simple this is. Photos and a report on the installed antennas will be included ih a future issue of WV Splatter.

73 Charlie N8RR

WEB SITES

The **KARC** web page is located at www.qsl.net/w8gk

The **WVAR** web page, which hosts a separate page for current and past issues of WV Splatter, is at www.wv8ar.com

The **WV DX Association** has a web page at https//wvdxa.com

ARRL Roanoke Division which r*epresents ARRL members in North and South Carolina, West Virginia and Virginia has a* Facebook Page under ARRL Roanoke Division and a website at www.arrl-roanoke.org

The East River Amateur Radio Club has a web page at: http://www.erarc.com

MEETINGS

WVDXA meets every Tuesday
Join WVDXA and friends every Tuesday at Bob Evans Restaurant on Jefferson Road in South Charleston. We gather about 8 AM and order breakfast at 9 AM.

WV8AR meets the second Monday at 7:00 PM
CAMC Teays Valley Hospital
Education Room
1400 Hospital Drive
Hurricane, WV 25526

KARC meets the first Friday at 6:30 PM
The Trinity Lutheran Church
1600 Kanawha Blvd. E
Charleston WV 25311

Tri-State Amateur Radio Club (TARA) meets the third Tuesday at 7:00 PM
Museum of Radio and Technology
1640 Florence Ave
Huntington, WV 25701.

East River Amateur Radio Club meets the first Monday at 7pm
704 Bland Street, Room 523,
Bluefield, WV 24701.

WEST VIRGINIA AMATEUR RADIO NETS

Northern Panhandle Amateur Radio Club
Sunday at 7:00 PM
Digital net 441.825

Kanawha ARES Net
Sundays at 8:00 PM
145.350 PL 91.5

Kanawha Amateur Radio Club Net
Sundays at 8:30 PM
145.350 PL 91.5

Jefferson County ARES Net
Sunday at 8:30 PM
147.255

8 Rivers ARC Net (Pocahontas County)
Sundays at 9:00 PM
145.11 PL107.2

WV Eastern Region ARES Net
Monday at 8:00 PM
147.255 MHz

DX HAIKU
Thanks to Franklin Powell

Six Meters

French voices echo,
Across six meters they dance,
Waves bridge distant lands.

India

Signals hum in sync,
FT8 calls reach the world--
India's silence.

Chair Time

Endless hours drift by,
In the shack, chasing whispers--
Worlds bound by faint tones.

Cabell County ARES Net
Monday at 8:30pm
On the following linked repeaters:
W8VA 146.76 MHz PL 131.8
N8OLC 146.985 MHz PL 131.8
KB8TGK 443.850 MHz PL 162.2 (Echolink)

WV Amateur Radio Club Information Net
Tuesday at 8:30 P.M.
147.270 – offset PL Tone 123.0
EchoLink Node 439354

Tri-Counties ARC ARES Net
Boone, Lincoln and Logan Counties
Tuesday at 7:30 PM
145.17 Tone 100.0

Parkersburg Amateur Radio Klub (P.A.R.K.)
Tuesdays, 9:00 PM on all linked repeaters.
146.970 MHz -offset
147.390 MHz +offset
444.725 MHz + offset
(all repeaters use 91.5 tone

Country Roads Net
Thursday 8:00 P.M
WV-Link Room 46488
Local Node Connection:
WVAR UHF 441.825 (Scott Depot, WV)
WB8CQV VHF 147.21 MHz (South Charleston)
Hot spots use US-WV-LINK (19941)

Tri-State Skywarn Net
Friday's at 8:00 PM
On WVAR's 147.27o Tone 123 linked to
Ashland' 's 146.94 repeater.

Pocahontas County Coffee Net
Monday-Wednesday-Friday 10:30 AM
146.730 – Tone 100.0
EchoLink WB8CNN-L

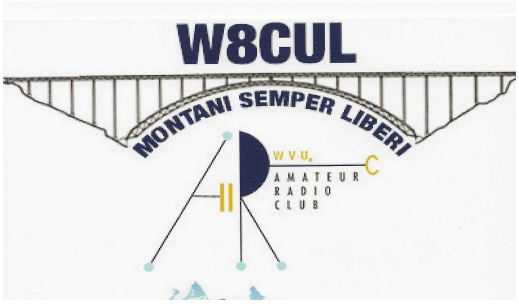
WIND SPEED AND THE BEAUFORT WIND SCALE

Wind speed is one of the most difficult weather conditions to measure without a speccialized instrument (an anemometer). One of the first scales to estimate wind speeds was created by Great Britains Admiral Sir Francis Beaufort (1774-1857). Beaufort developed the scale, which runs from Force 0 to Force 12, around 1805 to help sailors estimate wind speed by observing its effects on the environment. The wording of the scale has changed over the years to reflect the changes in society. Modern sailors and many others still use the Beaufort Wind Scale to estimate wind speed.

BEAUFORT WIND SCALE
Taken from H.O. Publication # 9 (1966 Edition)
AMERICAN PRACTICAL NAVIGATOR

FORCE	SPEED		DESCRIP-TION	SPECIFICATIONS
	MPH	KNOTS		
0	0-1	0-1	Calm	Sea like a mirror. Calm, Smoke rises vertically
1	1-3	1-3	Light Air	Ripples with the appearance of scales, no foam crests. Smoke drift indicates directiion; vanes do not move.
2	4-7	4-6	Light Breeze	Small wavelets, Crests have a glassy appearance, not breaking. Wind felt on face; leaves rustle; vanes begin to move.
3	8-12	7-10	Gentle Breeze	Large wavelets; crests begin to break; scattered whitecaps. Leaves and small twigs in constant motion; light flags extended.
4	13-18	11-16	Moderat e Breeze	Small waves, becoming larger; numerous whitecaps. Dust, leaves and loose paper raised up; small branches move.
5	19-24	17-21	Fresh Breeze	Moderate waves, taking a longer form; many whitecaps; some spray. Small trees in leaf begin to sway.
6	25-31	22-27	Strong Breeze	Large waves are forming, whitecaps everywhere; more spray. Larger branches of trees in motion; whistling heard in wires.
7	32-38	28-33	Near Gale	Sea heaps up; white foam from breaking waves begins to be blown in streaks. Whole trees in motion; resistence felt in walking against the wind.
8	39-46	34-40	Gale	Moderately high waves of greater length; edges of crests begin to break into spindrift; foam is blown in well-marked streaks. Twigs and small branches broken off trees; progress generally impeded.
9	47-54	41-47	Severe Gale	High waves; sea begins to roll; dense streaks of foam; Spray may affect visibility. Slight structural damage occurs; slates may be blown fron roofs.
10	55-63	48-55	Storm	Very high waves with overhanging crests; sea takes a white appearance as ses is blown is blown in very dense streaks; rolling is heavy and visibility reduced. Seldom experienced on land; trees broken or uprooted; considerable structural damage occurs.
11	64-72	56-63	Violent Storm	Exceptionally high waves; sea covered with white foam patches; visibility still more reduced. Very rarely experienced on land usually accompanied by wide-spread damage.
12	72-83	64-71	Hurricane	Air filled with foam; sea completely white with driving spray; visibility greatly reduced. Very rarely experienced on land usually accompanied by wide-spread damage.

WEST VIRGINIA UNIVERSITY AMATEUR RADIO CLUB W8CUL



I recently visited WVU and arranged to tour the Radio Shack operated by the University's Amateur Radio Club. Club President Ian MacDonnell, N0IAN, arranged for the club's Emergency Communications Officer, Hasith Perera, KE8TJE to give me the tour. Hasith, who is pursuing a Master of Science Degree in Physics, is from Sri Lanka. The two of us rode the elevator to the ninth floor of the Engineering Sciences Building and climbed the steps to the roof level ham shack. Shortly after arrival, Hasith and I realized we had met at the Charleston Area Hamfest and Computer Show in 2022. The Amateur Radio world in West Virginia is pretty small after all.

Hasith explained the “clutter” in the shack (It's neater than mine.) as a result of rearrangement of the club’s storage. He also explained that the operating and repair areas of the shack were going to be moved one level down. The current shack will continue to house their three repeaters and provide storage. The primary delay in this move is obtaining and routing the necessary coax to connect their roof top antennas to the new location. Once the move is finished the thirty-two club members will have a roomier, better organized shack for operations and repairing radios and test equipment. They will also have a better space to display the vintage radios, tubes, and test equipment donated to the club.

The club maintains six mobile two-meter radios in travel cases with roll-up J-pole antennas, mag mounts, batteries and backup batteries for emergency communications. A seventh case holds an HF radio and an EFHW antenna for portable operations. These are also available for check-out by club members for use at home or on vacations. The case I examined held a Kenwood radio. It also had a basic first aid kit. An industrial first aid kit was mounted beside the door of the shack. I assume the one on the floor below it is destined for their new space. The club takes safety seriously.

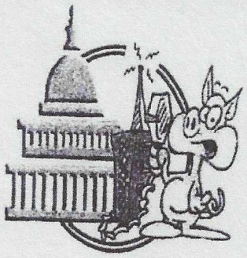
W8CUL and its members apply for a variety of grants related to amateur radio. They recently were awarded by the West Virginia Space Grant Consortium to attract high school students to Science Technology Engineering and Math through high-altitude balloon missions with a variety of radio-based payloads.

They are also supporting other clubs and teams within WVU to use radios for science and communication. A satellite downlink station is being actively developed to support an upcoming student-led small satellite development project in the engineering college.

One obvious difference between W8CUL and other radio clubs I am familiar with is the average age of the members. Most members of this club are undergraduate students at the University. A few, like Hasith, are graduate students. So the average age is probably 19 or 20. The youth of the members means their average years of experience is also low. Any Elmers in the club probably have less than six years experience in amateur radio. Hasith expressed an interest in developing contacts with other radio clubs in the WV area to meet and interact with local Elmers.

If you are interested in being an Elmer with W8CUL or donating time, tools, reference materials, equipment or batteries to it, contact them at wvuarc@gmail.com or:

WVU Amateur Radio Club
P.O. Box 6109
Morgantown, WV 26505



41st Annual

CHARLESTON AREA HAMFEST

Saturday, March 1, 2025
9 AM to 1 PM

BENI KEDEM TEMPLE
100 Quarrier Street
Charleston, WV 25301
Easy access off the interstates with
FREE PARKING BESIDE THE BUILDING!
(Handicap-accessible entrance left side)

Grand Prize: $500 Cash!
2nd Prize: Yaesu FTM-200D 2m/440/C4FM Digi/FM Xcvr
3rd Prize: $100 DX Engineering Gift Certificate

Plus Half-Hour Door Prize Drawings for Baofeng Dual Band Handhelds

Admission: $10 ("Extra" tickets $2 for more chances to win prizes)
Tables: $10
Limited Electric at no charge; first come-first serve (bring your own extension cord)

For table reservations, contact Fred Vickers WV8FV ***Reserve yours now—limited table space!***
wv8fv@arrl.net or 304-421-1707

Load in: Friday, Feb 28 from 2 to 4:30 PM
Saturday, March 1 from 7 to 8:30 AM
(bring your own cart for load-in)

Forums: ARRL 10 AM; ARES 11 AM
ARRL VE Testing at 12 Noon

For More Info: qsl.net/w8gk or E mail n8tmw@arrl.net